AMENDMENTS TO THE CLAIMS

1. (Canceled).

2. (Canceled).

3. (Currently Amended) ~~The~~ A burner assembly ~~of claim 2,~~ comprising:

a generally cylindrical burner tube adapted to supply combustion air to a combustion chamber downstream of the burner tube;

a gas supply conduit disposed in the burner tube adapted to supply combustion gas to the combustion chamber; and

a burner head assembly disposed in the burner tube upstream of the combustion chamber, the burner head assembly including a plurality of flame retention plates removably mounted thereto, wherein the flame retention plates include a base plate, a top plate, and at least one intermediate plate disposed between the base plate and the top plate, the intermediate plate including a center hub and a plurality of spokes extending from the hub, wherein each pair of adjacent spokes, the base plate, and the top plate define an interaction chamber.

4. (Original) The burner assembly of claim 3, wherein the hub includes hub apertures communicating with the interaction chambers.

5. (Original) The burner assembly of claim 3, wherein each interaction chamber communicates with the burner tube by a plurality of apertures in the base plate.

6. (Original) The burner assembly of claim 3, wherein each interaction chamber communicates with the combustion chamber by a plurality of apertures in the top plate.

7. (Canceled).

8. (Currently Amended) ~~The~~ A modular flame retention plate system ~~of claim 7,~~ for use in a burner having a cylindrical burner tube, the modular plate retention plate system comprising:

a base plate disposed near an end portion of the burner tube and having a plurality of combustion air flow and combustion gas flow apertures;

at least one intermediate plate mounted on and downstream of the base plate and including a plurality of combustion air flow and combustion gas flow apertures; and

a top plate mounted on and downstream of the intermediate plate and including a plurality of combustion air flow and combustion gas flow apertures, wherein the intermediate plate includes a center hub and a plurality of spokes extending from the hub, wherein each pair of adjacent spokes, the base plate, and the top plate define an interaction chamber.

9. (Original) The modular flame retention plate system of claim 8, wherein each spoke includes at least one slot having a slit connecting the slot to an adjacent interaction chamber.

10. (Original) The modular flame retention plate system of claim 8, wherein each spoke includes an enlarged end portion having a plurality of apertures.

11. (Original) The modular flame retention plate system of claim 10, wherein combustion air is delivered to a combustion chamber through the plurality of apertures disposed in the enlarged end portion of each spoke.

12. (Original) The modular flame retention plate system of claim 8, the hub including hub apertures communicating with the interaction chambers.

13. (Currently Amended) The modular flame retention plate system of claim ~~7~~ 8, wherein the base plate includes a plurality of air flow apertures disposed about a perimeter thereof.

14. (Original) The modular flame retention plate system of claim 7, further comprising a plurality of changeable tabs mountable on a perimeter of the base plate, the base plate including a plurality of air flow apertures disposed about the perimeter thereof.

15. (Original) A method of controlling delivery of combustion air and combustion gas into a combustion chamber of a burner, the method comprising:

providing a plurality of interaction chambers upstream of the combustion chamber, the interaction chambers being generally bound by a flame retention base plate, at least one flame retention intermediate plate, and a flame retention top plate, the at least one flame retention intermediate plate being disposed between the flame retention base plate and the flame retention top plate, the shape of each interaction chamber being generally defined by the at least one flame intermediate plate;

providing combustion air to each interaction chamber through a plurality of air flow apertures disposed in the base plate;

distributing combustion gas into each of the interaction chambers by a hub of the intermediate plate, and a plurality of spokes extending outward from the hub, the hub and the spokes receiving gas from at least one gas aperture disposed in the base plate; and

delivering combustion air and combustion gas from each interaction chamber into the combustion chamber and through plurality of gas and air flow apertures disposed in the top plate.

16. (Original) The method of claim 15, wherein the distributing of combustion gas into each interaction chamber is at least through a hub aperture communicating between the gas aperture of the base plate and the interaction chambers.

17. (Original) The method of claim 15, wherein the distributing of combustion gas into each interaction chamber is through a slot disposed in at least one of the spokes adjacent the interaction chamber, the slot communicating between the gas aperture of the base plate and the interaction chamber.

18. (Original) The method of claim 15, the slot communicating with an adjacent interaction chamber by a slit connecting the slot to the interaction chamber.

19. (Original) The method of claim 15, further comprising delivering combustion air into the combustion chamber through a plurality of apertures disposed in an enlarged end portion of each spoke.

20. (Original) The method of claim 15, further comprising delivering combustion air into the combustion chamber through a plurality air flow apertures disposed about a perimeter of the base plate.